

Fig. 1

Fig. 2

FOOT 1 2000000

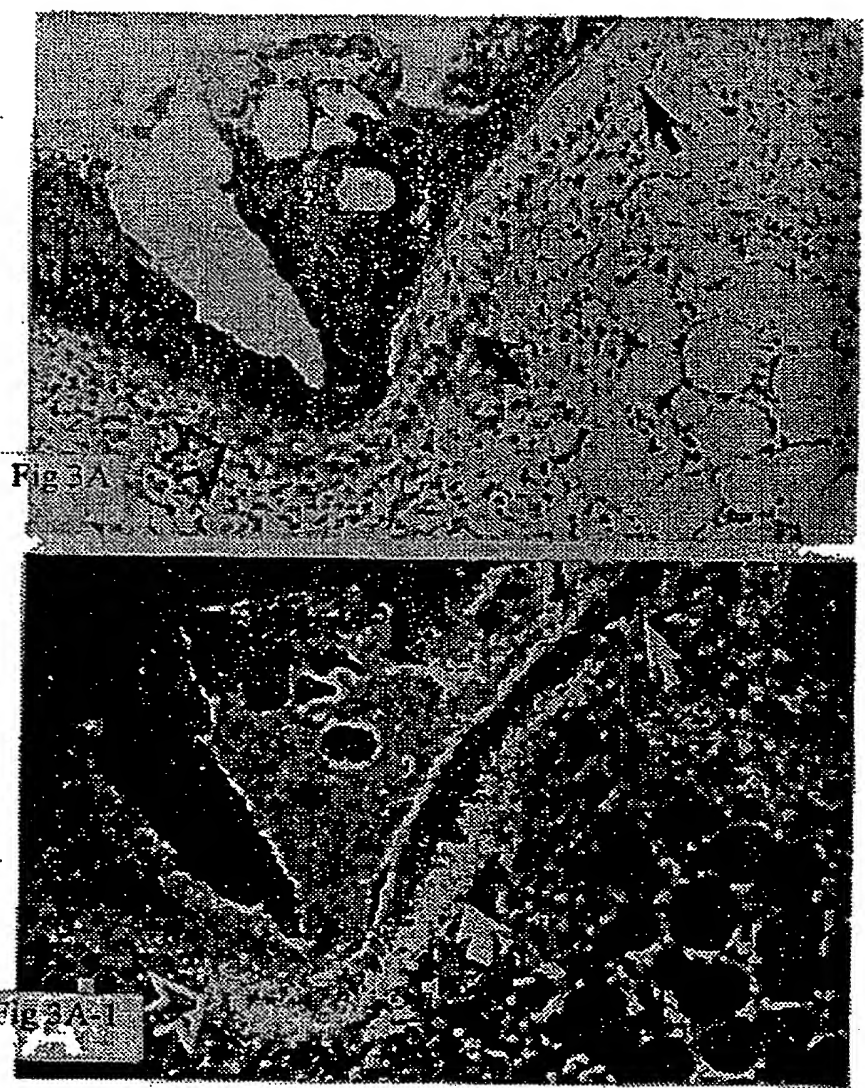


Fig. 3

FIG 4A (SEQ ID NO.:12 & 13)

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1 gaccacctga tcgaaggaaa aggaaggcac agcggagcgc agagtgagaa ccaccaaccg
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1
121 cctgcgctct ggctgggctg ctgcctctgc ttctcgtctc tcctgcccgc agcccggggc
2 P A L W L G C C L C F S L L L P A A R A
181 acctccagga gggaagtctg tgattgcaat gggaagtcca ggcagtgtat ctttgatcgg
22 T S R R E V C D C N G K S R Q C I F D R
      }=> Domain V
241 gaacttcaca gacaaactgg taatggattc cgctgcctca actgcaatga caacactgat
42 E L H R Q T G N G F R C L N C N D N T D
301 ggcattcact gcgagaagtg caagaatggc ttttaccggc acagagaaaag ggaccgctgt
62 G I H C E K C K N G F Y R H R E R D R C
361 ttgccttgca attgtaactc caaaggttct cttagtgtct gatgtgacaa ctctggacgg
82 L P C N C N S K G S L S A R C D N S G R
421 tgcagctgta aaccagggtg gacaggagcc agatgcgacc gatgtctgcc aggcctccac
102 C S C K P G V T G A R C D R C L P G F H
481 atgctcacgg atgcgggggtg caccacaagc cagagactgc tagactccaa gtgtgactgt
122 M L T D A G C T Q D Q R L L D S K C D C
541 gaccagctg gcacagcagg gccctgtgac gcggggcggc gtgtctgcaa gccagctgtt
142 D P A G I A G P C D A G R C V C K P A V
601 actggagaac gctgtgatag gtgtcgatca ggttactata atctggatgg ggggaaccct
162 T G E R C D R C R S G Y Y N L D G G N P
661 gagggctgta cccagtgttt ctgctatggg cattcagcca gctgccgcag ctctgcagaa
182 E G C T Q C F C Y G H S A S C R S S A E
      }=> Domain IV
721 tacagtgtcc ataagatcac ctctaccttt catcaagatg ttgatggctg gaaggctgtc
202 Y S V H K I T S T F H Q D V D G W K A V
781 caacgaaatg ggtctcctgc aaagtcccaa tggtcacagc gccatcaaga tgtgttttagc
222 Q R N G S P A K L Q W S Q R H Q D V F S
841 tcagcccaac gactagatcc tgtctatttt gtggctcctg ccaaatttct tgggaatcaa
242 S A Q R L D P V Y F V A P A K F L G N Q
901 caggtgagct atggggcaaa cctgtccttt gactaccgtg tggacagagg aggcagacac
262 Q V S Y G Q S L S F D Y R V D R G G R H
961 ccattctgccc atgatgtgat cctggaaggt gctgggtctac ggatcacagc tccttggatg
282 P S A H D V I L E G A G L R I T A P L M
1021 ccacttggca agacactgcc ttgtgggctc accaagactt acacattcag gttaaatgag
302 P L G K T L P C G L T K T Y T F R L N E
1081 catccaagca ataattggag cccccagctg agttactttg agtatcgaag gttactgcgg
322 H P S N N W S P Q L S Y F E Y R R L L R
1141 aatctcacag ccctccgcac ccgagctaca tatggagaat acagtactgg gtacattgac
342 N L T A L R I R A T Y G E Y S T G Y I D
1201 aatgtgaccc tgatttcagc ccgccctgtc tctggagccc cagcaccctg ggttgaacag
362 N V T L I S A R P V S G A P A P W V E Q
1261 tgtatatgtc ctgttgggta caaggggcaa ttctgccagg attgtgcttc tggctacaag
382 C I C P V G Y K G Q F C Q D C A S G Y K
      }=> Domain III
1321 agagattcag cgagactggg gcccttttggc acctgtattc cttgtaactg tcaaggggga
402 R D S A R L G P F G T C I P C N C Q G G
1381 ggggcctgtg atccagacac aggagattgt tattcagggg atgagaatcc tgacattgag
422 G A C D P D T G D C Y S G D E N P D I E
1441 tgtgctgact gcccaattgg ttctacaac gatccgcacg acccccgcag ctgcaagcca
442 C A D C P I G F Y N D P H D P R S C K P
1501 tgtccctgtc ataacgggtt cagctgtcca gtgattccgg agacggagga ggtgggtgtc
462 C P C H N G F S C S V I P E T E E V V C

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FIG 4B

(SEQ ID NO.: 12 & 13)

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1561 aataactgcc ctcccggggt caccggtgcc cgctgtgagc tctgtgctga tggctacttt
482 N N C P P G V T G A R C E L C A D G Y F
1621 ggggacccct ttggtgaaca tggcccagtg aggccttgte agccctgtca atgcaacagc
502 G D P F G E H G P V R P C Q P C Q C N S
1681 aatgtggacc ccagtgccctc tgggaattgt gaccggctga caggcagggtg tttgaagtgt
522 N V D P S A S G N C D R L T G R C L K C
1741 atccacaaca cagccggcat ctactgcgac cagtgcgaag caggctactt cggggaccca
542 I H N T A G I Y C D Q C K A G Y F G D P
1801 ttggtcccca acccagcaga caagtgtcga gcttgcaact gtaaccccat gggctcagag
562 L A P N P A D K C R A C N C N P M G S E
1861 cctgtaggat gtcgaagtga tggcacctgt gtttgcaagc caggatttgg tggccccaac
582 P V G C R S D G T C V C K P G F G G P N
1921 tgtgagcatg gagcattcag ctgtccagct tgctataatc aagtgaagat tcagatggat
602 C E H G A F S C P A C Y N Q V K I Q M D

      I=0 Domain I/II
1981 cagtttatgc agcagcttca gagaatggag gccctgattt caaaggctca ggggtggtgat
622 Q F M Q Q L Q R M E A L I S K A Q G G D
2041 ggagtagtac ctgatacaga gctggaaggc aggatgcagc aggcctgagc ggccttcag
642 G V V P D T E L E G R M Q Q A E Q A L Q
2101 gacattctga gagatgcccc gatttcagaa ggtgctagca gatcccttgg tctccagttg
662 D I L R D A Q I S E G A S R S L G L Q L
2161 gccaaaggtga ggagccaaga gaacagctac cagagccgcc tggatgacct caagtgact
682 A K V R S Q E N S Y Q S R L D D L K M T
2221 gtggaagag ttcgggctct gggaaagtcag taccagaacc gagttcggga tactcacagg
702 V E R V R A L G S Q Y Q N R V R D T H R
2281 ctcatcactc agatgcagct gagcctggca gaaagtgaag cttccttggg aaacactaac
722 L I T Q M Q L S L A E S E A S L G N T N
2341 attcctgcct cagaccacta cgtggggcca aatggcttta aaagtctggc tcaggaggcc
742 I P A S D H Y V G P N G F K S L A Q E A
2401 acaagattag cagaaaacca cgttgagtcg gccagtaaca tggagcaact gacaaggga
762 T R L A E S H V E S A S N M E Q L T R E
2461 actgaggact attccaaaca agccctctca ctggtgcgca aggccttgca tgaaggagtc
782 T E D Y S K Q A L S L V R K A L H E G V
2521 ggaagcggaa gcggtagccc ggacggtgct gtggtgcaag ggcttgtgga aaaattggag
802 G S G S G S P D G A V V Q G L V E K L E
2581 aaaaccaagt ccctggccca gcagttgaca agggaggcca ctcaagcgga aattgaagca
822 K T K S L A Q Q L T R E A T Q A E I E A
2641 gataggtctt atcagcacag tctccgcctc ctggattcag tgtctccgct tcaggaggtc
842 D R S Y Q H S L R L L D S V S P L Q G V
2701 agtgatcagt cctttcaggt ggaagaagca aagaggatca aacaaaaagc ggattcactc
862 S D Q S F Q V E E A K R I K Q K A D S L
2761 tcaagcctgg taaccaggca tatggatgag ttcaagcgta cacaaaagaa tctgggaaac
882 S S L V T R H M D E F K R T Q K N L G N
2821 tggaaagaag aagcacagca gctcttacag aatggaaaaa gtgggagaga gaaatcagat
902 W K E E A Q Q L L Q N G K S G R E K S D
2881 cagctgcttt cccgtgcca tcttgctaaa agcagagcac aagaagcact gagtatgggc
922 Q L L S R A N L A K S R A Q E A L S M G
2941 aatgccactt tttatgaagt tgagagcatc cttaaaaacc tcagagagtt tgacctgcag
942 N A T F Y E V E S I L K N L R E F D L Q
3001 gtggacaaca gaaaagcaga agctgaagaa gccatgaaga gactctccta catcagccag
962 V D N R K A E A E E A M K R L S Y I S Q
3061 aaggtttcag atgccagtga caagaccag caagcagaaa gagccctggg gagcgtgct
982 K V S D A S D K T Q Q A E R A L G S A A
3121 gctgatgcac agagggcaaa gaatggggcc ggggaggccc tggaaatctc cagtgcagatt
1002 A D A Q R A K N G A G E A L E I S S E I

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FIG 4C

(SEQ ID NO.: 12 &amp; 13)

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3181 gaacaggaga ttgggagtct gaacttggaa gccaatgtga cagcagatgg agccttgg--
1022 E Q E I G S L N L E A N V T A D G A L A
3241 atggaaaagg gactggcctc tctgaagagt gagatgaggg aagtggagg agagctggaa
1042 M E K G L A S L K S E M R E V E G E L E
3301 aggaaggagc tggagtttga cagcaatatg gatgcagtac agatggtgat tacagaagcc
1062 R K E L E F D T N M D A V Q M V I T E A
3361 cagaagggtg ataccagagc caagaacgct ggggttacaa tccaagacac actcaacaca
1082 Q K V D T R A K N A G V T I Q D T L N T
3421 ttagacggcc tcctgcatct gatggaccag cctctcagt tagatgaaga ggggctggtc
1102 L D G L L H L M D Q P L S V D E E G L V
3481 ttactggagc agaagcttcc ccgagccaag acccagatca acagccaact gcggcccatg
1122 L L E Q K L S R A K T Q I N S Q L R P M
3541 atgtcagagc tggaaagagag ggcacgtcag cagagggggcc acctccattt gctggagaca
1142 M S E L E E R A R Q Q R G H L H L L E T
3601 agcatatgat ggattctggc tgatgtgaag aacttggaga acattagggg caacctgccc
1162 S I D G I L A D V K N L E N I R D N L P
3661 ccaggctgct acaataccca ggctcttgag caacagtga gctgccataa atatttctca
1182 P G C Y N T Q A L E Q Q *

3721 actgaggttc ttgggataca gatctcaggg ctggggagcc atgtcatgtg agtgggtggg
3781 atggggacat ttgaacatgt ttaatgggta tgctcaggtc aactgacctg accccattcc
3841 tgatcccatg gccaggtggg tgtcttattg caccatactc cttgcttcct gatgctgggc
3901 atgaggcaga taggcactgg tgtgagaatg atcaaggatc tggaccccaa agatagactg
3961 gatggaaaaga caaactgcac aggcagatgt ttgcctcata atagtcgtaa gtggagtcc
4021 ggaatttggg caagtgtgtg tgggatatag tcaacttatt ctttgagtaa tgtgactaaa
4081 ggaaaaaact ttgactttgc ccaggcatga aattcttcct aatgtcagaa cagagtgcga
4141 cccagtcaca ctgtggccag taaaatacta ttgcctcata ttgtcctctg caagcttctt
4201 gctgatcaga gttcctccta cttacaaccc aggggtgtga catgttctcc attttcaagc
4261 tggaaagaag gagcagtgtt ggagtggagg cctgtaaggc aggccattcc agagctatgg
4321 tgcttgctgg tgccctgccac cttcaagttc tggacctggg catgacatcc tttcttttaa
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4441 atgttgggaa agtatttact ttttcggttt caaagtgata gaaaagtgtg gcttgggcat
4501 tgaaagagggt aaaattctct agatttatta gtcctaattc aatcctactt ttcgaacacc
4561 aaaaatgatg cgcataatg tattttatct tattttctca atctcctctc tcttctctcc
4621 acccataata agagaatgtt cctactcaca cttcagctgg gtcacatcca tccctccatt
4681 catccttcca tccatcttcc catccattac ctccatccat ccttccaaca tatatttatt
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4981 ctgggttggt cacatttctt tgcattccag cgtcactctg tgccttctac aactgattgc
5041 aacagactgt tgagttatga taacaccagt gggaattgct ggaggaacca gaggcacttc
5101 caccttggct ggggaagacta tgggtgtgcc ttgcttctgt atttcttgg attttctga
5161 aagtgttttt aaataaagaa caattgttag atgccaaaaa //
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**FIG 4D**

(SEQ ID NO.:14 &amp; 15)

3421 ttagacggcc tctgcatct gatgggtatg tgaaccaca acccacaacc ttccagctcc  
1102 L D G L L H L M G M \*

3481 atgctccagg gctttgctcc agaacactca ctatacctag cccagcaaa ggggagtctc  
3541 agctttcctt aaggatatca gtaaagtgtc tttgtttcca ggcccagata actttcggca  
3601 ggttccctta catttactgg accctgtttt accgttgcta agatgggtca ctgaacacct  
3661 attgcacttg ggggtaaaagg tctgtggggc aaagaacagg tgtatataag caacttcaca  
3721 gaacacgaga cagcttgagg atcctgctaa agagtctggc ctggaccctg agaagccagt  
3781 ggacagtttt aagcagaggga ataacatcac cactgtatat ttcagaaaga tctactagggc  
3841 agccgagtgg aggaaagctt gaagaggggg ttagagagaa ggcagggtga gactacttaa  
3901 gatattgttg aaataattga agagagaaat gacaggagcc tgctctaagg cagtagaatg  
3961 gtggctggga agatgtgaag gaagattttc ccagtctgtg aagtcaagaa tcacttgccg  
4021 gccgggtgtg gtggctcacg cctgtaattc tagcactttg ggagactgaa gcgggtggat  
4081 cacccgaggc caggagtga agaccagcct ggccaacatg gtgaaaccct gtctctacta  
4141 aaagtacaaa aattagctgg atgatggtgg tgggcgcctg taattccagc tactcaggag  
4201 tctgaggcag gagaatcgct tgaaccagg aggcgaggtt acagtgagcc aagattgcac  
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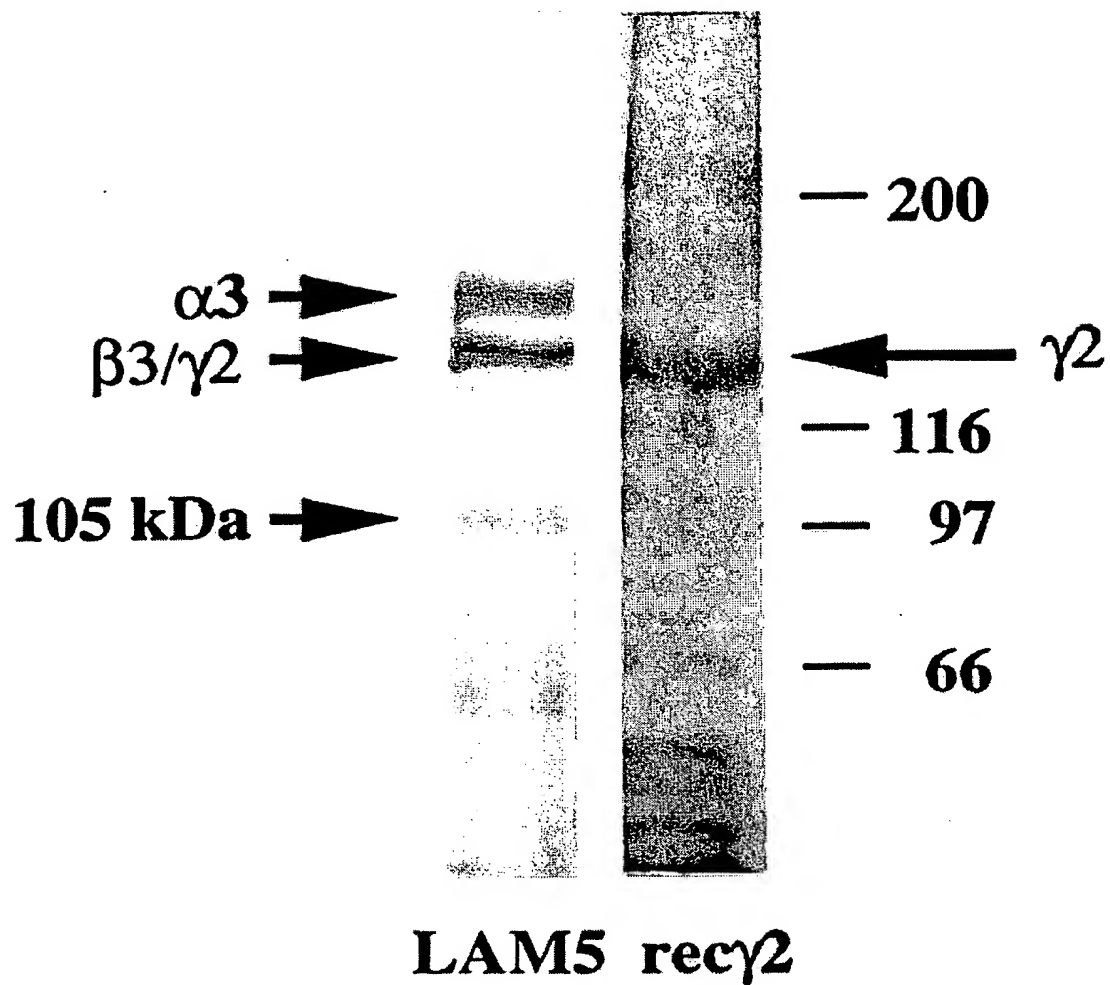


Fig. 5

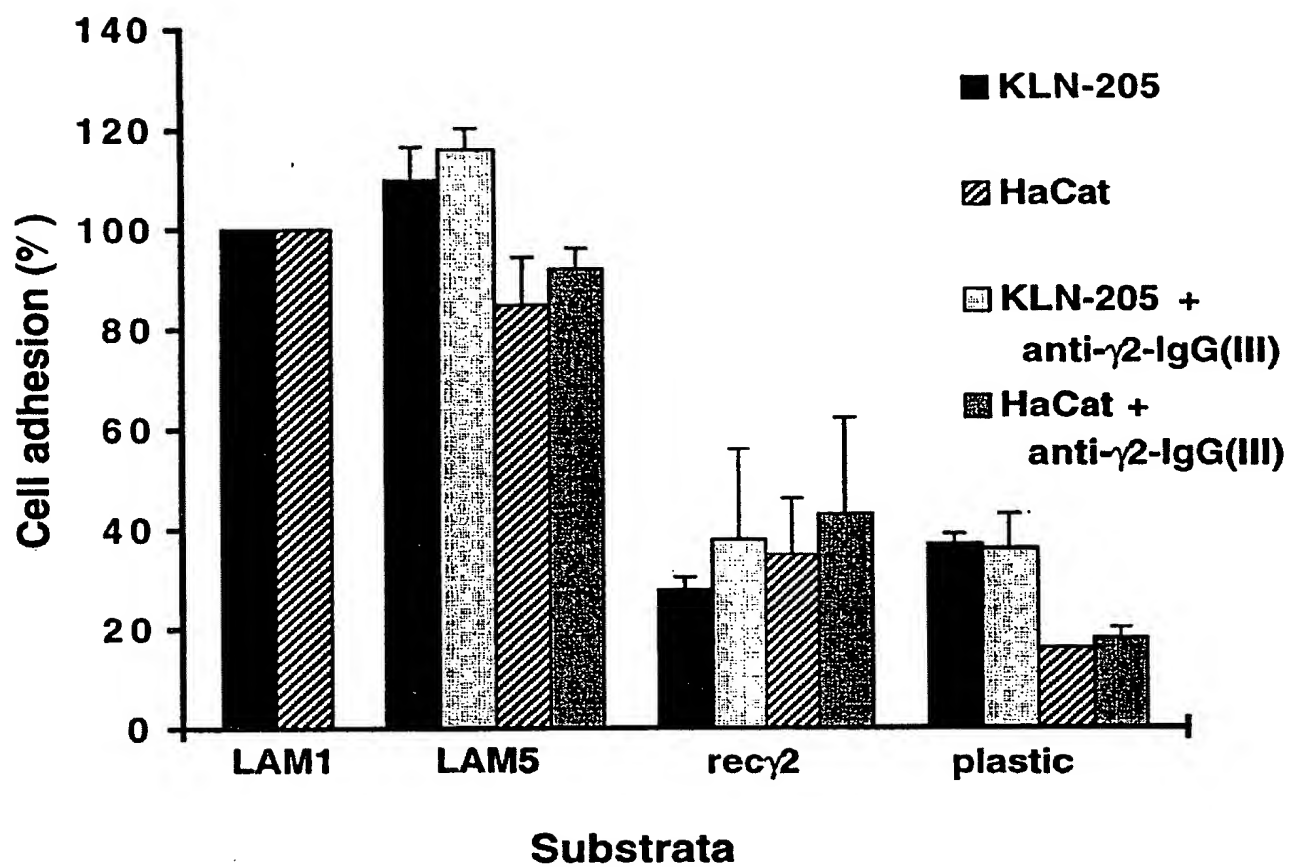
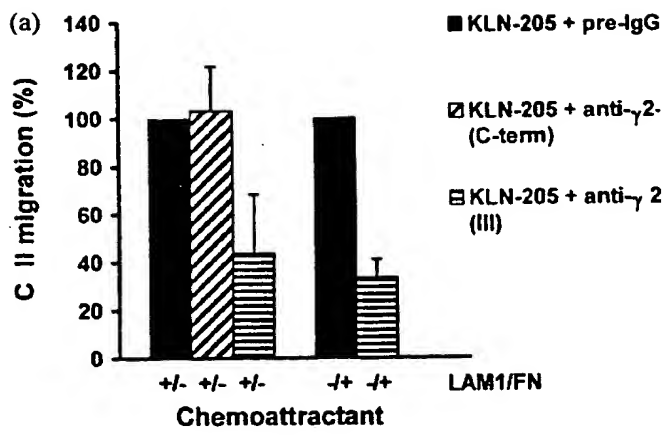
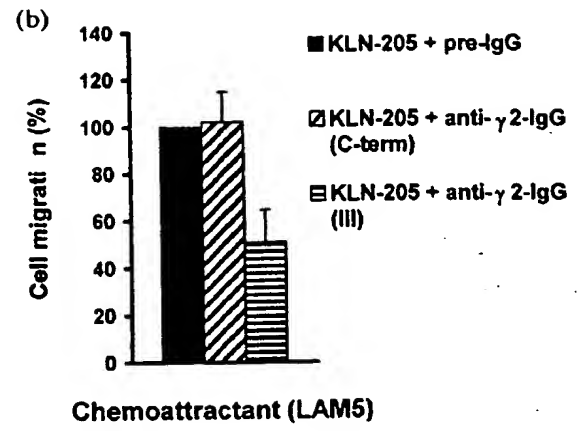


Fig. 6



A



B

Fig 7

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-613 AGTCTTTATA GGGAGGTTGG CCAGTCAATA GTTACTTTA TGA TTGCTA ACCCTG TGA GCAGGAA TT ATGTGGACCA
-533 GAGAGAAAC CCTTGGTTCA GCCTGGAGAA A GAGAGGTT ACCCTAAAC TGGAG GT G AGAGGACCCT GTTGTGACTC
-453 TCCGACTGAC TTGTCTTCCT TGATGTCCTT TAA CCGGAG CTGATTCGG CTGCTGCCTT ATTTCTGA T TA CGCTCTT
-373 AAGATTGGGC CTCCCAGTTT GAGGAAGGGG C GGCT CTG TCTACCTCTG TGAATCTGCC CT GACCACC CCGGGAGAGA
-293 AGGAGGGGCTC CCGGGAATCT CGCACATTCC AGGCAAAG C TCCCG GCCG CAGCCTCT T GCCACACCCT TGGCCC GGC
-213 CAGGTGTGCG CCTCCTCGC TCGGAGGGGG AGCGGGCGGC TCGGGGGAGC GATTTTCCAG CCCGGTTTGT GCTCTGTGTG
-133 TTTGTCTGCC TCTGGAGGGC TGGGTCCTCC TTATTCACAG GTGAGTCACA CCCTGAAACA CAGGCTCTCT TCCTGTCAGG
-53 ACTGAGTCAG GTAGAAGAGT CGATAAAC ACCTGATCAA GGAAGAGGAA GGCACAGCG AGCGCAGAGT GAGAACCACC
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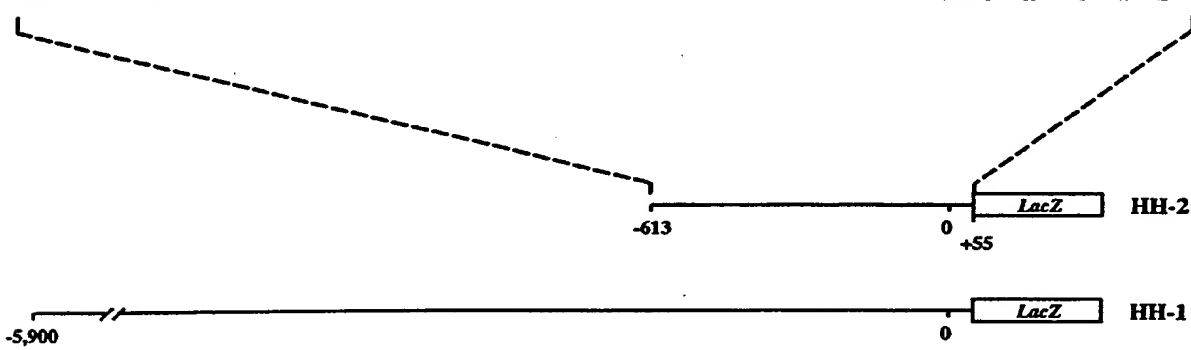
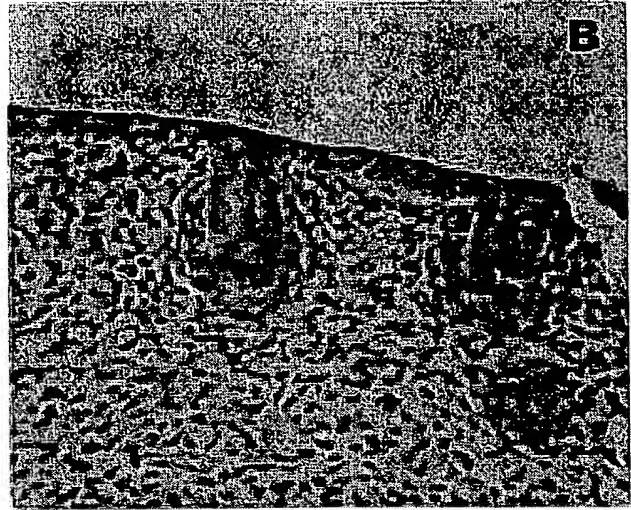


Fig. 8

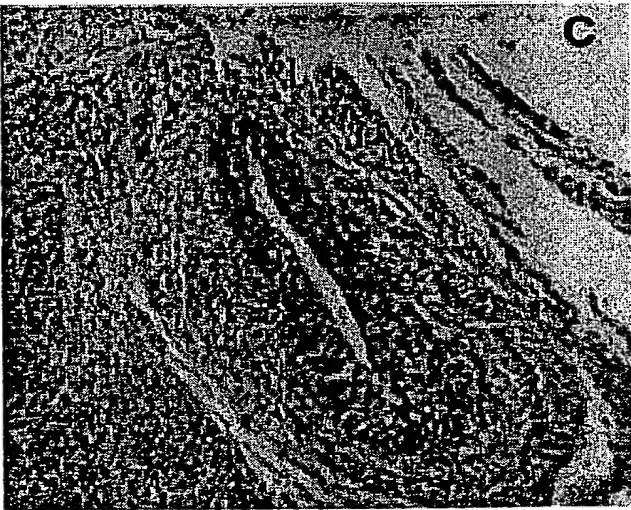
**A**



**B**



**C**



**D**

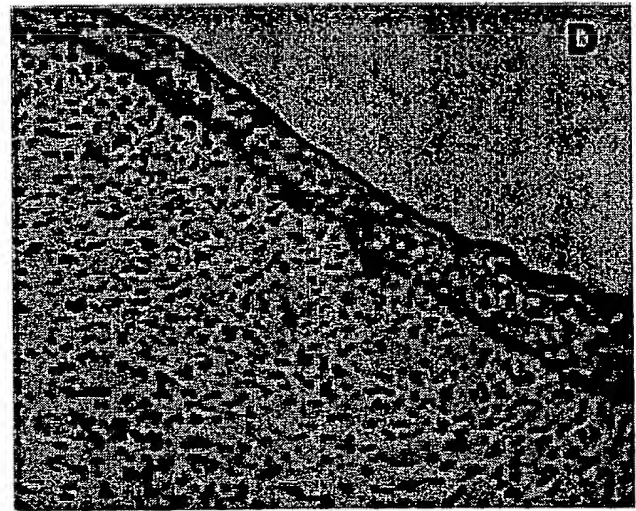


Fig. 9

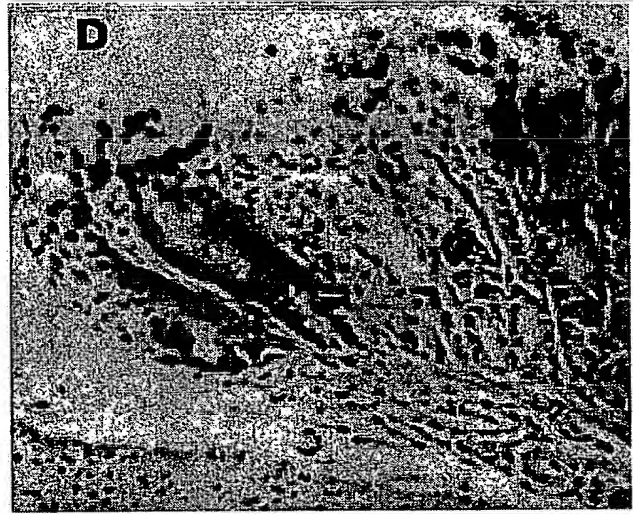
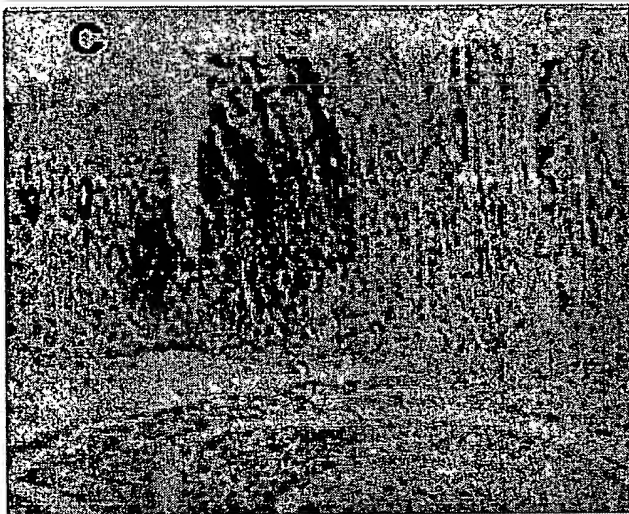
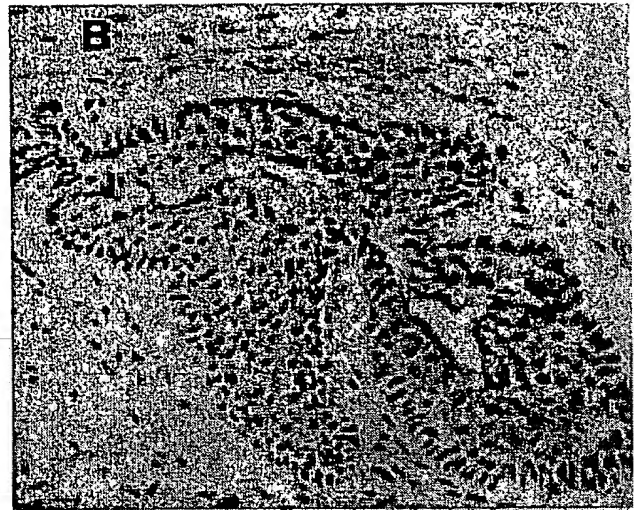
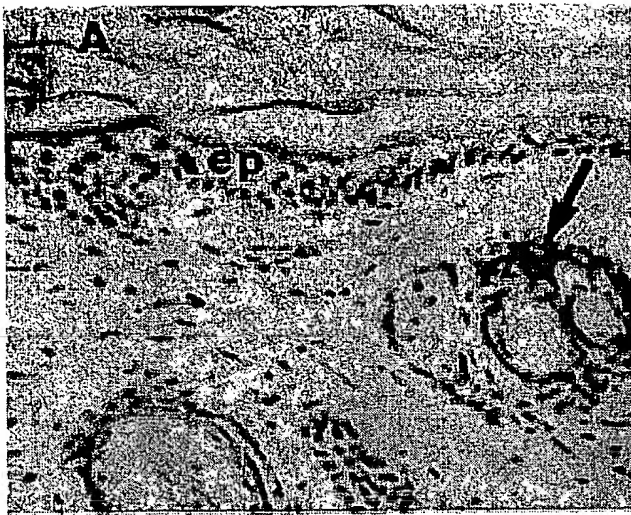


Fig. 10

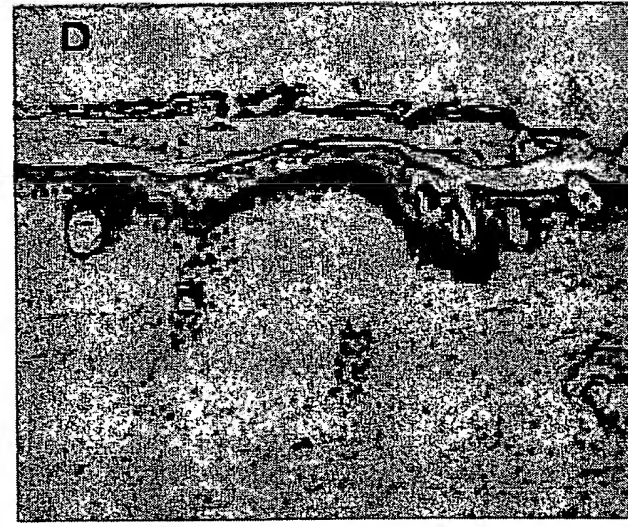
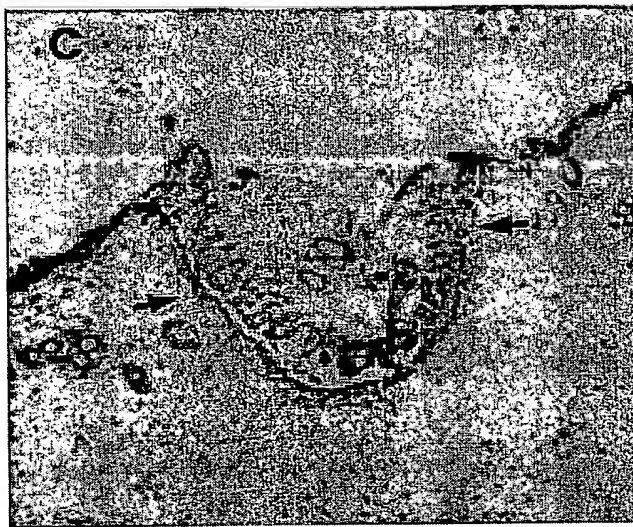
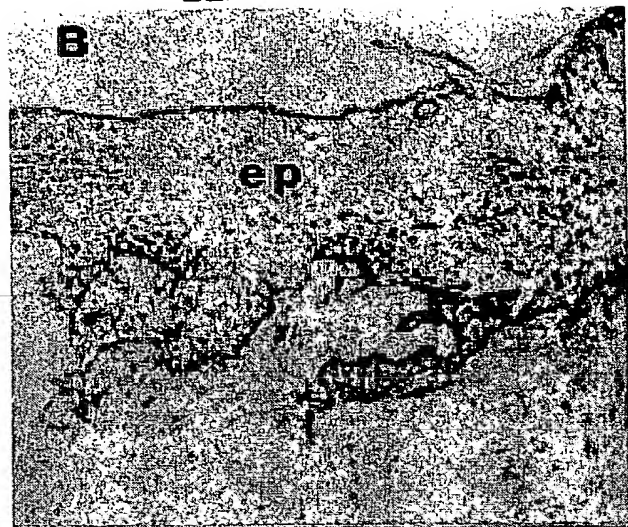


Fig. 11